

THE LEISURE HOUR.

BEHOLD IN THESE WHAT LEISURE HOURS DEMAND,
AMUSEMENT AND TRUE KNOWLEDGE HAND IN HAND.—*Courier.*



CAPTAIN CHUBB AND MR. GOLDIE'S BUTLER.

LOMBARDY COURT:

A STORY OF THE CITY AND THE SEA.

CHAPTER XXXII.—THE INQUIRY.

"The painful warrior, famed for fight,
After a thousand victories, once foiled,
Is from the books of honour razed quite,
And all the rest forgot, for which he toiled."

—*Shakespeare.*

JOHN PETERSON accompanied Captain Chubb to the City the next morning, and confided to No. 1374.—APRIL 27, 1873.

him, as they walked along, some of the circumstances which had led to his dismissal from the counting-house of Messrs. Goldie Brothers; but he did not tell him of the provocation he had received from Mr. Huxtable; for then it would have been necessary to inform him also of the facts upon which the manager's insulting language had been based.

"You have a temper of your own, young man," the skipper said, "and are like to suffer for it. I wonder that you should be so uppish; your brother,

PRICE ONE PENNY.

now, had none of that about him, and yet he had spirit enough for anything—anything that was right, I mean.”

“You don’t know how I was provoked,” Captain Chubb.

“That’s true; but why should you be provoked if you had done nothing wrong? A man who feels that he is in the right can generally keep his temper. ‘Let the galled jade wince.’ How was it with you, mate?”

“It’s too late to talk about that now,” said John. “I was to blame, but not in respect to Mr. Huxtable.”

“What do you mean to do then?”

John had no particular meaning, except to go and see Mr. Jones again, and when he parted with Captain Chubb, who had his own business to attend, the skipper promised that he also would look in at the coffee-house at one o’clock.

“I suppose it’s no use trying any more to bring you back to the counting-house,” said Mr. Jones, when he was seated at his usual place, with John Peterson opposite to him. “There is only one left now of the old staff. Huxtable has it all his own way. All the clerks are strangers and young men, and they don’t care anything for the business, except just to get their pay as it falls due. It is very unpleasant for me, but I take no notice. I mind my own work, and leave them to theirs. It’s very trying, though, about the books, and there are things that I can’t make out, things that I can’t show to any one, nor mention even. If it were not that I have given my word to Mr. Goldie not to leave him, I should give up business and retire.”

“You have Mr. Adolphus still, I suppose?”

“Oh, yes; but no one takes any notice of him. He seems out of spirits, too; he’s very much altered lately, Mr. Adolphus is, though he’s always pleasant and gentlemanlike. Huxtable must have some reason for getting rid of all the old hands. I shall keep my eye upon him. There are things that I can’t make out, as I mentioned before; but I don’t want to be unjust, and must not say anything more at present. Well now, you want another situation. Here comes a gentleman who, I have been thinking, could find you one.”

John Peterson looked up and recognised his father’s old friend, Mr. Bennett, of the insurance office. Mr. Jones had already mentioned the subject to him, and John was surprised to find how readily and cordially Mr. Bennett responded to his wishes.

“I can’t promise you a situation at this moment,” he said, “but Mr. Mortimer, one of our directors, asked me about you and your brother some months back, and would have given one of you a place in our office if there had been any occasion for it. As you were to be provided for by Mr. Goldie, nothing more was said on the subject, but a word from him would get you what you want directly. Unfortunately Mr. Mortimer is very ill just now, and has not been at any of our board meetings lately, but I’ll let him know about you, and I’ll undertake to say he will interest himself for you. So set your mind at rest, and remain quietly at home until you hear from me.”

“You are very kind, and so is Mr. Mortimer.”

“I dare say you can guess why he takes such an interest in you?”

“I suppose it was because my father meant to have insured his life in that office.”

“Yes; and because, if Mr. Mortimer had not gone away that day a little before his usual time, it would probably have been done. So he thinks you have some claim upon him, perhaps, though he wouldn’t say it in so many words. Don’t ever allude to it, please; but that’s my idea about it.”

Captain Chubb joined the party while they were yet talking, and returned with John to Vernon Place. Mrs. Peterson was then informed of all that had occurred, and under the genial influence of the captain’s good company and buoyant spirits, they all made the best of it, and spent another pleasant evening.

“Now, you are all going to dine with me to-day,” the captain said, next morning. “I have ordered some good things to be sent in, and if you’ll find knives and forks and plates and dishes, I’ll find something to put upon them. Don’t say a word; it’s my turn now, you know, and I shall stand upon my rights.”

And so he did. And very substantial rights they were to stand upon, or rather to sit down to. And so for many days they lived together, the captain generally having his own way about the dinner, though not without many a protest, and leaving them to provide the other meals. It was well for them that the kind-hearted skipper gave them so much of his company; for they were in great trouble, all of them. Mrs. Peterson always fretting about her boy; Mrs. Carlton waiting for letters from Australia, which could not arrive for many weeks, and having but a small reserve to depend upon in the meantime, with no certainty as to the future; and John watching anxiously for the postman, who passed the window four or five times daily without bringing the much-wished-for letter from the insurance company or from Mr. Bennett. Nevertheless, Captain Chubb had no great reason to be cheerful on his own account; for until the inquiry should take place, which was to justify him in regard to his conduct with the Daphne and her crew, he felt himself to be under a cloud. Although a large proportion of his crew were saved, he had brought home with him only two or three of them. Some had taken passage in other ships, and were working their way home; others were dispersed he knew not whither. The inquiry was postponed in hope of the return of some who could give evidence, and during all that time Captain Chubb was obliged to remain on shore in idleness.

When at last it did take place it was impossible to come to any other conclusion than that the captain had done his duty; there had been no failure on his part, or on the part of the crew, either before the collision or afterwards. The proper lights had been shown, and a good look-out kept; and the ship had been skilfully handled from first to last.

All the evidence went to show this; but there was a general feeling, nevertheless, that it might have been shown in a more decided and satisfactory manner. Mrs. Carlton and her son were among the witnesses examined; and they gave their testimony with such manifest partiality, and showed their regard for Captain Chubb so plainly, as to deprive it of some part of its value. Reggie declared in earnest tones that the skipper had said he would be a father to him, and had made his word good so far; and there was a murmur and a titter among the bystanders when he said it, as if that was very significant, and at the same time very intelligible, though Reggie had not the slightest idea why they were so amused. The

chief mate and those of the crew who were called as witnesses were all of them more or less implicated in the catastrophe, and their testimony was received with a certain amount of reserve. Almost the only person who could be said to be disinterested was Chalk, the black cook; and the manner in which he gave his evidence was anything but satisfactory.

Being asked whether he understood English, he answered, "Ya-as—No," and shook his head, nodding it afterwards by way of confirmation. But he admitted, after much pressing, that he knew "small some."

Being interrogated as to his comprehension of the force and meaning of an oath, he nodded his head violently and showed his teeth, which was the nearest approach to a laugh that he was ever guilty of. "Yaas," he said, and proceeded to give a specimen of the profane language which he had been used to hear from lips of his fellow-seamen and others, both English and American, until stopped with difficulty and threatened with punishment for his shameful and improper expressions in court.

He was then desired to swear that the evidence he should give should be the truth, the whole truth, and nothing but the truth, but interrupted the speaker, exclaiming, "What you say? 'Swar!' Just now you say 'No swar!' Just now you say, 'Go prison for swar,' and now you tell 'Swar.' I not swar no more, not for nobody."

An attempt was made to explain; but Chalk could not or would not understand what was required of him. He positively refused to take the oath, until catching Captain Chubb's eye, he yielded suddenly, and did as he was desired; upon which some one was heard to whisper that the captain and the cook seemed to understand one another at all events. Having got over the first difficulty, Chalk gave his evidence freely, both as to the lights and the ship's course, and every other point on which a question could be asked. He had observed everything, and everything was right, everywhere. But it appeared afterwards that he had been below and fast asleep at the moment when the collision occurred, and therefore could not possibly, of his own knowledge, affirm anything of what had taken place up to that time. Being again cautioned, he was examined as to the course of events subsequently; and here his testimony was plain and straightforward enough. But when some questions were put as to whether the captain had been, as was averred, the last to quit his ship, he again fell into contradictions.

"Last to quit ship?" he said; "what you mean 'quit'?"

The word was explained, "Leave it, go away from it."

"Go away," he said; "captain not go away at all, captain nebber go away from ship; ship go away from captain; ship go bottom."

"Was Captain Chubb the last to go over the side before the ship sank?"

"Course he was."

"Did you see him?"

"Course I did; sawed him wid my eye."

"What did you see?"

"Sawed cap'n and foost mate bobbin to each oder on de gangway, quite politeful, as if dey was going into de cuddy to dinner, 'stead of goin' to de bottom to be drown'."

"Where were you then?"

"Whar was me?"

"Yes, you?"

"What me, Chalk?"

"Yes. Where were you, Chalk?"

"Don't know," said the black man, rolling his eyes; "disremember dat."

"Come, sir, you can't have forgotten it; it's impossible. Where were you when you saw Captain Chubb and Mr. Terry standing in the gangway, bowing one another over the side?"

Chalk's white eyeballs rolled this way and that till they rested upon the spot where Captain Chubb was standing, but the skipper avoided looking at him, so Chalk continued silent.

"Where were you? I ask again."

No answer.

"Where were you, I say?"

"How can her tell when she not know?"

"Were you in the boat?"

"No, sar."

"Were you in the water?"

"No sar."

"Were you on board the Daphne?"

"No, sar."

"You are quite sure you were not on board the Daphne?"

"Yes, sar."

"Where were you then?"

No answer. The only conclusion they could arrive at under these conflicting replies was that Mr. Chalk's evidence was not of much value.

One other question was asked, however. "Who was the last individual to quit the ship?"

"Last inderviggle? I tink it was Op."

"Op; who is Op? Was he one of the crew?"

"Yaas."

"A white man or a black?"

"Black, sar; black as Chalk."

"Where is he now, do you know?"

"Yaas, sar," and, stooping down, Chalk lifted up the black dog from his feet, where it had been quietly nestling during the examination.

"Oh! a four-legged witness, I see."

"No, sar," Chalk answered, quite seriously, "only tree!"

There was a laugh, and some one remarked, "We can't swear this witness, I'm afraid."

"I swear him," said Chalk; "swear, Op, swear!"

The dog instantly began to snarl and show his teeth, uttering a rich variety of gutturals, and getting wilder and more savage as the noise of laughter arose around him.

"I don't know but Hop's evidence is as good as his master's," some one observed, and soon afterwards the sitting came to an end, the conclusion being that there was no blame to be attached to anybody, and that everything had been done by Captain Chubb after the collision to preserve the lives of those for whom he was responsible.

"Now are you satisfied?" Reggie asked the skipper as they were leaving the court, in the midst of a little group who pressed round him to shake hands with him and congratulate him. But Captain Chubb gave him no answer; he felt that, although the verdict, taken by itself, was satisfactory, yet the inquiry had not gone off well. The evidence, as some one had said in his hearing, was all one-sided; they wanted to know something more about the other ship; all the blame was thrown upon her. It was easy to make a scapegoat of a vessel which was most probably gone to the bottom of the sea,

and the very name and owners of which were unknown. They wondered what the other side would have said. These and similar remarks were uttered freely, and Captain Chubb could not but admit that there was a show of reason in them.

"It will always be against me," he said to Mr. Adolphus, who was trying to cheer him up. "I never lost a ship before, but better men than I have suffered from accidents which they could not avoid. 'He lost the Daphne,' that's what they will say of me."

"It's a horrid shame," said Mr. Adolphus; "it's like hiring a horse, don't you know, that can't keep on his feet; he tumbles down with you and breaks your neck or nearly, and then everybody says, 'You threw him down, and you have to pay damages for the horse, and nobody ever thinks or cares what damage the horse has done to you. But you are all right, Captain Chubb. Shake hands, do; it's an honour to shake hands with such a fellow as you.'"

"If the other boat had been saved," said the skipper, "I should have been satisfied. I should not have cared so much then what was said. It's the loss of that boat and her crew that troubles me. Time goes on, and we hear nothing of her. And poor Charley! to think that he should be in her!"

"Ah, yes! poor Charley!" said Mr. Adolphus, with a sigh and a strange expression of countenance. "Poor Charley! Do you think it possible, after all, that he may be alive?"

"I hope so," said the skipper, in a very dismal tone; "I hope so, for his mother's sake."

"And so do I," said Mr. Adolphus, bravely; "I hope so too, and I try to think so—for his mother's sake."

CHAPTER XXXIII.—THE LION AND THE ASS.

"An' you had an eye behind you, you might see more detraction at your heels than fortune before you."—*Shakespeare*.
 "Well, honour is the subject of my story."—*Shakespeare*.

It soon became apparent that there was only too much reason in the fears which Captain Chubb had expressed as to what would be said about his losing the Daphne, for when he presented himself at Lombardy Court a day or two after the inquiry to ask about another ship, the reception he met with was not at all agreeable to his feelings. He did not see Mr. Goldie on that occasion; Mr. Huxtable met him on the landing as usual, and took him into his own room.

"Another ship?" he said, repeating the skipper's question, with a look of surprise; "I am afraid there is not one that we could appoint you to at present."

"What prospects?" Captain Chubb asked.

"I don't know; I can't hold out any expectation just now. You see, Captain Chubb, we are hoping to find out something about the ship which ran into you. We have had no information on that point yet; we shall want you here as a witness if we can get hold of her."

"And am I to stay lumbering about, doing nothing, till that happens?" the captain asked.

"We can't compel you to do so, of course," said Huxtable.

"You do compel me, though, if you refuse to give me another ship."

"It is to your interest, you know, as well as ours, to have it cleared up about that vessel."

"It is cleared up, as far as it ever will be. You

have had all the evidence you are ever likely to have. You know what my opinion is."

"You think the other vessel went to the bottom?" "I do," said the skipper. "It could hardly be otherwise. She came into us with a blow that made the Daphne reel, and cut her down to the water's edge. The shock must have shaken every timber in her hull. A blow end on is not like one in the quarter, to be sure. She might get safe off and swim for a time. I'll never believe she did, though."

"Why not?"

"Why not? Do you think she would have sheered off in that fashion without lying-to to see what mischief she had done? Would her captain have turned tail and left us to sink or swim when he heard the cry that rose up from our men, and saw the lights? Would his crew have obeyed such orders if he had been brute enough to give them? No, Mr. Huxtable, I won't believe it till I know it. And so I say, as I said before, that ship was lost, and all hands with her."

"There's no knowing how it may have been," said Huxtable.

"No knowing, sir! no knowing! Why, you would not have done such a thing yourself; I should hope not, however. And so you don't mean to give me another ship? Is that what I am to understand?"

"Well, you know, Captain Chubb, that when a captain has been unfortunate enough to lose a ship, a valuable ship, too, like the Daphne, a 1, coppered and copper-fastened, and a cargo, a valuable cargo, to say nothing of the crew, some of them missing—"

"To say nothing of the crew!" Captain Chubb repeated. "Well, go on."

"Some of them missing," Mr. Huxtable continued, "and nothing saved except the ship's papers, and the lives of the passengers and some of the seamen, yourself among the number—"

"Myself among the number!" said the captain, getting very red.

"It's rather unusual, I say," Mr. Huxtable proceeded, shuffling uneasily in his chair, "to come at once, and before the thing has been properly cleared up, and ask for another command."

"Well, but," said Mr. Adolphus, who had been watching for an opportunity to put in a word in the skipper's favour; "well, but, I say, it would have been still more unusual and extraordinary, don't you know, if Captain Chubb had come and asked for another command if he had *not* been among the number saved, don't you know. How would you have liked that?"

But neither the manager nor the captain paid any attention to him.

"We must wait, at all events, till something more is known," Mr. Huxtable added.

"Oh, that's it, is it?" said the captain.

"Yes, that's it, Captain Chubb. Don't go away, Mr. Adolphus; I want you here."

"Is Mr. Goldie in his office?" the captain asked.

"No, he's not in town to-day; and if he were he would tell you the same. Don't move, Mr. Adolphus."

"Then I'm cashiered, am I? dismissed?"

Mr. Huxtable made no reply, but kept his eye furtively upon the skipper, and played nervously with the ruler, expecting, perhaps, that this broad-shouldered, strong-limbed man would set his foot upon the table and spring upon him like another

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wild cat. Mr. Huxtable had an objection to wild cats. He had a pleasure in teasing them, it is true, but liked to keep out of their way and to have someone at hand for fear of accident; but he need not have been afraid of Captain Chubb. The skipper looked at him for a moment fiercely enough, but without any hostile intentions. Then turning round, he smote his hand upon his thigh with a report that made the manager start in his chair, and uttering an exclamation of contempt, strode out of the room.

He had difficulty, however, in restraining his wrath as he turned out of Lombardy Court, with the fixed resolution never to enter the place again. This was his reward for twenty years' service, boy and man, in Goldie Brothers' ships! This was what he had got in return for all that he had done for the increase and honour of that house! He had been proud of his owners, and had served them as if their interests were his own. He had brought them much gain, and never had a loss before. And this was the way they treated him! Well, it was what he had bargained for in one sense. He had done his duty, and had received his pay, and there was no obligation on either side. He had heard that that was Mr. Goldie's business way of looking at things, but he had never believed it before. He scarcely believed it now. Still, he supposed there was nothing really to complain of; but he would not have served his enemy's dog in such a way for his part.

It did not occur to Captain Chubb that he had not only given his time and skill and energies to his owners in return for their money, but had also encountered dangers and sufferings and anxieties which no weight of gold or silver could ever balance. He had often kept the deck for days and nights together, without taking rest, in heavy weather or on dangerous coasts. He had fought against pirates in the Eastern Archipelago. He had stood face to face with death in his own ship with a fever raging among his crew. He had doctored them and nursed them with his own hands, ministering to their wants, comforting the sick, encouraging the faint-hearted—for men will fear sickness who fear not storm or tempest—committing the dead to the sea with solemn rites, fulfilling all the offices of Christian charity towards his suffering brethren; and yet during all that time never relaxing from the more direct duties of his post as captain and navigator of the ship. He had brought his vessel home after that with a crew of ruffians of different nationalities, picked up wherever he could find them at a foreign port, and had only avoided mutiny and murder and the loss of his ship and cargo by watching continually with pistols in his hands until almost worn to death with fatigue and weariness. These events he never could look back upon without a shudder; but he regarded them as incidents of his position, dangers to be met, troubles to be borne, and all included in the one word, which was the great aim and object of his life—DUTY. He took no credit to himself for all these acts of faithfulness; indeed, he never thought of them at all, except perhaps in his short daily prayer and thanksgiving to Him who had brought him safely through so many dangers and had enabled him honestly to discharge his trust. But it seemed hard now that he should be cast adrift for no fault of his own. There were few shipowners, few men in Mr. Goldie's position, who would have served him so, he thought.

After all, the captain said to himself, it was not

Mr. Goldie who had done it. It was wrong to blame him for the act of his manager. So, after a great deal of reflection, Captain Chubb resolved that he would carry his case to the Supreme Court of Admiralty—namely, Mr. Goldie himself. And as there was always a difficulty in getting access to that dignitary at the counting-house, he would call upon him at his private residence.

The skipper acted upon this idea at once. He was too much excited by his interview with Mr. Huxtable to be able to brook any delay; and though he felt that it was taking a liberty, he trusted the importance of the occasion would excuse it. The door was opened for him at Colombo Villa by a footman, who said that Mr. Goldie was from home. Mrs. and Miss Goldie were also out. The captain said he would wait for his return, and was shown into the dining-room. A tall genteel-looking man, wearing a dress coat, entered the room after he had been there a few minutes, and, nodding to him familiarly, asked him how he found himself.

The captain rose, and said he was "pretty well, thank you."

"You are Captain Chubb, I suppose?" said the other.

"Yes, sir; that's my name, at your service."

"I have heard our people talk about you, so I seem to know you. Sit down. What will you take?"

"Nothing, thank you."

"I can give you a glass of fine old Sherry; or Madeira, that's the wine I prefer myself; Madeira that has been as many voyages to the East Indies as you have, almost."

"Nothing of the sort, thank you," said the skipper again. He would hear what Mr. Goldie had got to say to him, he thought, before he would taste bit or sup in his house.

"A glass of grog, then; real old Jamaica rum, that would be the thing for you, I fancy."

The captain again refused.

"Why you arn't like a sailor, Captain Chubb. I thought a real old salt like you would never refuse a glass of grog."

The skipper began to be annoyed at the man's familiarity, and said, "May I ask when Mr. Goldie is likely to return? my business is with him."

"Oh, he won't be back yet; we don't dine till seven; and this ain't the place for business when he comes. Perhaps I can be of use to you instead."

"And who may you be?"

"My name is Upperly."

"Upperly! Do you live here? Are you related to Mr. Goldie?"

"Yes, oh yes; that is I am in the relation of steward to Goldie—house steward."

"In other words you are his butler?"

"Well, sir, if you prefer the name, yes, sir, I am Goldie's butler. A butler is as good a man as the captain of a merchant ship for anything I know."

"Quite as good," said the skipper, "if he is not ashamed of his office, and does his duty in it."

"You may leave that to me," said Mr. Upperly, stretching himself at length in an easy-chair. "Yes, do your duty; that's the chief point with all of us."

"Do your duty and be faithful to your trust," the skipper added.

"Oh, of course, faithful to your trust," Mr. Upperly echoed, pouring himself out a glass of his favourite Madeira and sipping it "like a lord." "I could not

help being sorry for you, though, Captain Chubb, all the same."

"Sorry for me? What do you mean?"

"Why, you know, I can't help hearing what is said; I don't listen, I despise listeners; but when our people talk I can't stop my ears. Mr. Huxtable dined with us yesterday after the inquiry. It used to be Mr. Adolphus; but he has not been here lately, and yesterday Mr. Huxtable got himself invited somehow. Mr. Adolphus was a gentleman, and always behaved himself as such, and acted accordingly, except the last time he dined here, and then he went away without so much as a look, and walked off with young Peterson in his dress boots instead of waiting for a cab."

"Well—well?" said Captain Chubb, impatiently.

"And so," Mr. Upperly went on, "Mr. Huxtable was a-saying about that inquiry, that though it did not really go against you, yet it was not what he called satisfactory. There was no witnesses, he said, not to speak of, except your own friends and relations, and you was not the last man to quit the ship, whatever you might say about it."

"Hold your tongue, fellow," cried the skipper, "I don't want to hear anything from you. Leave me alone till Mr. Goldie returns. I'll hear it from himself."

"Mr. Goldie will say the same as Mr. Huxtable," said the other; "he agreed with him all through. And they said it was no use your thinking about another ship till it was all cleared up. They said the last man on board was a blackamoor, that nobody cared for."

Captain Chubb seized his hat and marched to the door.

"There was not a house in all the shipping line that would give you a ship," he said.

"Did they say that? Did Mr. Goldie say that?"

"Mr. Goldie did not open his lips; but silence gives consent; that's scripture I believe," said the butler. "And Mr. Huxtable said it, and a great deal more, and Goldie did not contradict it."

"I'm glad Mr. Goldie did not say it, at all events," Captain Chubb replied, after he had reflected for a few seconds; "I don't believe he thinks so either; but perhaps it is hardly worth while to wait for him now. I must take time and consider."

"Don't be in a hurry, Captain Chubb. Don't be put out by what I've said. I'm sorry for you, as I said before. I don't think any the worse of you myself."

"Thank you," said the skipper, grimly.

"And let me give you just one little glass of—"

"No!" roared the skipper.

"Well, then, if you won't stop, James shall open the door for you."

Mr. Upperly rang the bell for James, and then offered the captain his hand. "I hope you will soon get another sitivation, captain," he said. "Good-bye, I don't think any the worse of you for what has happened. We are all liable to accidents; I know what a collision is. They might as well find fault with me for knocking two bottles of wine together in the cellar, as will happen now and then, be as careful as you may. I should not stand it, of course; but you are differently sitivated. I don't blame you, and I am not ashamed to shake hands with you, whatever other folks may be."

But before he could finish his sentence, and before James could make his appearance, Captain

Chubb flung the door open for himself and was gone. He felt at that moment very like the sick lion in the fable, when, after he had been insulted by other beasts, he was kicked by the ass. Only he had no feeling of weakness, but was stirred rather to anger and determination. He would not rest till he had brought some further evidence to bear upon the facts which had been so unfortunately reported and misrepresented. It should go hard with him, he thought, if he did not bring his persecutors to confess, sooner or later, the unfairness and unkindness of their conduct.

GEORGE CRUIKSHANK.

BY the demise of George Cruikshank we have lost the strange and eccentric genius who for three-score years at least was emphatically the artist of the people. His popularity has been almost universal with Englishmen during two generations, and his name has been a household word nearly all that long period, the reason being that for well-nigh the first quarter of this century he stood almost alone as the facile and indefatigable illustrator of the popular literature, and the satirist of popular follies and social and political inconsistencies and absurdities. He had won a lasting reputation in a field from which the great masters in the cynical and satirical walks of art had departed, and on which no successor, save himself, at all worthy of being considered their rivals had as yet appeared; and he had achieved this remarkable triumph while he was yet in the vigour of youth. In several respects he was as fortunately situated as was Hogarth, with whom he has been rather inconsiderately ranked by his admirers. To our notion it is not doing justice to either of these great geniuses to place them in the same category, for if they are in some particulars alike, they are in other and more weighty regards as far asunder as two members of the same profession could possibly be placed.

All the works of Hogarth, with the rarest exceptions, show the unmistakeable evidences of thoughtful preparation and deliberate execution; while those of Cruikshank which trench on Hogarth's domain are as obviously the outcome of his immediate impulses, the embodiments, as it were, of the sudden flashes of a genius which carried him away, and which (like the "*bonnes choses qui ne sont pas dites, mais qui se disent*") leaped into life under his magic touch in the very moment of their conception. Then, Hogarth had enjoyed the advantages of thorough training, the admirable results of which are visible in all his works, especially in those of largest scope; and the absence of the fruits of such training is just as patent to the educated eye in the larger productions of Cruikshank, as is its presence in those of his renowned predecessor. Hogarth, again, could, and frequently did, portray the faces of women with lines of exquisite beauty and tenderness, while in all the multitudinous works of Cruikshank there is hardly a single female face to be found which the eye of the spectator cares to dwell on. Lastly, Hogarth was a thorough colourist, who could fix on his canvas the most delicate carnations, and lead them off into shadow by the tenderest gradations of tint (often rivalling Gainsborough and Sir Joshua), thus making

it evident that his eye and hand were familiar with the mystery, impenetrable by many distinguished painters, both of the past and present day, of perfect colouring. Of this mystery Cruikshank knew literally nothing, and he frankly acknowledged as much to the present writer, while he deeply regretted his ignorance in this respect. But a man cannot know everything; and it is certainly enough for George Cruikshank that in the walk, or rather in the various walks, in which he elected to exercise his unrivalled powers, he was invariably successful, surpassing all compeers, and reigning for long years absolutely without a rival.

George Cruikshank was born in London in the year 1792; he was the son of Isaac Cruikshank, a caricaturist of some note, who flourished in England contemporaneously with Gilray and Rowlandson during the period of the French Revolution, and who, according to the testimony of his son, was also a water-colour artist of considerable merit. Whatever may have been the character of the father, one thing has to be recorded to his credit, namely, that he was a kind and discriminating parent: he recognised the early talent of the child George; he cultivated it carefully and unremittingly, and made the little fellow, who was always meddling with his father's tools, the companion of his studies, and at times, to the boy's no small gratification, an assistant in his labours. It may have been owing as much to this kindly parental care as to anything else, that the young George owed his ready skill, and was enabled as early as he did to embody in so striking a manner the grotesque and fanciful suggestions of his extraordinary genius. The tentative sketches of the boy, still preserved, date from the year 1799; in 1805 he drew the funeral of Nelson; and it appears that the first money he received from a publisher was earned in 1811, when he was for a time in the pay of one Welsh, at Newington Butts. His first published performances were small illustrations for the booksellers and song-writers, with occasional pictorial squibs of a political sort. He made profitable capital of the first Napoleon, then the general bugbear, "Boney," and was constantly holding him up to ridicule, evidently with great relish; though he would ridicule no less readily the fear of the timorous who expected that "Boney" would swallow them alive. Thus he illustrated the threatened invasion by a picture of the Corsican in huge jack-boots and cocked-hat, with a drawn sword in one hand and a leg of mutton in the other, which the wicked monster had carried off from Mrs. Tremble's larder, having come over from Boulogne in the night for that purpose.

Long before his majority Cruikshank had mastered completely the details of the etcher's art, and was able to produce rapidly plates to meet the hurried demand of publisher and printer; and by his readiness and reliable punctuality he obtained constant employment, and so got through a large amount of work, never refusing a commission it was possible to accept, and never failing to execute it within the time at which it was promised. While thus working industriously for a living, he sent to the Royal Academy a drawing from the *Antique*, with a request to be allowed to study at that institution from the living model under Fuseli. The Academy was at that time overcrowded with students, and Fuseli, in reply, could only tell him that he might come if he liked, but that he would have to fight for a place among the crowd. Cruikshank, not relishing the prospect

of a scramble, did not go, and thus it was that he missed becoming a great painter, and became instead the greatest of England's satirical draughtsmen and her most voluminous and meritorious worker with the etching-point. He probably cared but little for the disappointment at the time, though we know that he regretted it much in later years.

It is said that about this time he took a fancy for the stage, and that some few years earlier he had had a strong inclination for the sea. But he was to be neither actor nor sailor, and we may be sure that under the consciousness he must have had of capability as an artist, these floating fancies were soon dissipated. As a young man he was remarkable for a never-failing fund of animal spirits and a tendency to mirth and fun. He would send notes which were half scribble half sketch—he would draw a comically imploring face to accompany a trifling request—he would give a receipt to a bill in the shape of a jolly fellow capering in the extravagance of delight—he would picture himself suffering from toothache with one cheek swollen like a balloon. More than fifty years ago the present writer saw a collection of these fugitive overflowings of animal vivaciousness which were then in the possession of one of Cruikshank's occasional employers living in Ivy Lane.

It was in the year of the trial of Queen Caroline that Cruikshank made a notable advance in the estimation of that class (then a very large class) of the community who were violently dissatisfied with the state of public affairs. His satires on the prevailing topic—the treatment of the Queen—and his scaring caricatures of those who, figuring in that business, had made themselves doubly hateful to the people, were precisely adapted to the feeling of the hour. This was in 1820, and it was in connection with the famous Hone (for whom he had been occasionally working for some years), the author of "The Black Book," "The House that Jack Built," and other ultra Radical publications, that the most telling of these performances were produced. One of them, "The Matrimonial Ladder," went through fifty editions, and for the time was in everybody's hands. Some of Cruikshank's designs at this period were almost savage in their aim, but the more ferocious they were the more were they relished by the discontented. The truth is, they were wanted, and the work they did was a work that wanted to be done. Placemen, pensioners, sinecurists, and court favorites of vile antecedents, were then shamefully numerous, and were feeding on the vitals of the country at a time when multitudes were starving, and, bread being almost at a famine price, the working classes were brought to the very verge of destitution. Numbers of the lazy Barnacles who fed fat on the produce of the industrious were gibbeted in Hone's publications, and suffered the disgrace of exposure, and in the end the pension list had to be revised, and a very considerable reform in connection with the abuses so roundly assailed was ultimately effected. It has been stated that Hone reaped enormous profits from the labours of Cruikshank, and grew rich while the industrious artist received but half-a-guinea each for his designs. We rather doubt the truth of the assertion, which was not at all borne out by Hone's position and circumstances some thirty odd years ago, with which we happened to be acquainted. It should be remembered, too, that many of the designs which Cruikshank drew were done from suggestions of Hone, but for whose ideas they

would never have existed. The most remarkable incident of Cruikshank's connection with Hone is related by the artist himself, who does not give the precise date of it, but it must have occurred about this time. "About thirty or forty years back," he says, writing in 1863, "there were one-pound Bank of England notes in circulation, and unfortunately there were at the same time a great many forged one-pound Bank of England notes in circulation also, or being 'passed,' the punishment for which offense was in some cases transportation and in others death. At this period I was residing in the City (in Salisbury Square, Fleet Street), and having occasion to go early one morning to the Royal Exchange, upon my return, between eight and nine o'clock, passed down Ludgate Hill, and, seeing a crowd at the corner of the Old Bailey, suspected that there was the punishment of death being carried out in front of the gaol of Newgate, and upon looking in that direction saw several persons suspended from the gibbet. Two of these were women, who had been executed for passing forged one-pound notes. I was much shocked at the sight, and, reflecting upon the number of persons who were put to death for this offence, I determined, if possible, to put a stop to so terrible a punishment for such a crime; and upon my return home, ten minutes after this, I made a sketch of the above note (the 'Bank Note not to be imitated,' which was a travesty of the ordinary note, having for part of the design two women hanging), and then made an etching of it. Mr. Hone, then of Ludgate Hill, published it, and when it appeared it created a 'sensation.' The Directors of the Bank of England were exceedingly wroth. The crowd round Hone's shop was so great that the Lord Mayor had to send the police to clear the street, and these notes were in such demand that they could not be printed fast enough, and I had to sit up all one night to etch and send plates. Mr. Hone realised above £700, and I had the satisfaction of knowing that no man or woman was ever hung after this for passing forged one-pound Bank of England notes."

In 1821 Cruikshank, unfortunately for the public weal, joined in the production of a serial publication written in a sort of slipshod dialect, and calculated only to degrade the public taste and debase the public character. It produced both these results, and further, by luring to London crowds of country boobies, taught them the readiest methods of ruining their health, corrupting their morals, and dissipating their incomes. The book was odious in design and stupidly coarse and vulgar in execution. Cruikshank grew disgusted with the tone of it, but, unhappily, did not throw it up until he had contributed by his spirited frolicsome designs to float it into a large circulation—such a circulation as it could never otherwise have obtained—the literary portion, if literary it is to be called, being describable only as rubbish.

In the space allowed us we cannot pretend to any, even the briefest, notice of the entire works of George Cruikshank, amounting as they do to several thousands in number; and we may be the rather excused from any attempt of the kind, seeing that not long ago, in a series of papers on the subject of caricature in this journal, we had occasion to treat of Cruikshank at some length.* There are many of his works, however, which can hardly be passed over,

and to some of them we must allude. In 1823 he illustrated Ireland's "Life of Napoleon" in a series of quarto plates coloured by hand. They were not of his best, but, like all he did, they were spirited and effective, and, unlike most of his work, were free from the elements of satire. In 1825-6 appeared his "Mornings in Bow Street," in the columns of the "Morning Herald." A year or two later he was engaged in illustrating the standard works of English fictionists, edited by Roscoe. Then followed his "Scraps and Sketches," comprising some of the most amusing things that ever came from his hand. In 1835 he commenced his "Comic Almanack," which continued to flourish during the best part of twenty years, and was quite a cyclopaedia of comicality, fun, and the queerest of absurdities. In 1836 he came into connection with Dickens, and illustrated "Oliver Twist," in the origination and construction of which story he afterwards claimed a share, and in furtherance of whose success he certainly devoted his entire energies, surpassing himself in the admirable designs he furnished for it. His designs for Ainsworth's robbery and murder books were executed about the same period, and unhappily have tended to perpetuate the existence of several offensive perpetrations which are an outrage on morality, and which the moral sense of the nation would willingly let die. "The Omnibus" appeared in 1842. During the two following years he did the very clever illustrations for "Bentley's Magazine," and in 1845 he brought out his "Table Book," edited by Gilbert à Beckett. In the same year he produced twelve remarkable etchings illustrative of Maxwell's "History of the Irish Rebellion." The originals of these are now in the Royal Aquarium, Westminster. They are twelve small-sized water-colour drawings, and they show us George Cruikshank in a light in which he is all too rarely seen. The drawings are done with astonishing delicacy and feeling, and are thoroughly finished works of art, while the subjects are of a terrible and stirring kind, exhibiting the fearful horrors of revolution and anarchy with striking force, not unmingled with certain grim phases of humour, as repulsive and detestable as the savage cruelties with which they are accompanied.

It was about the year 1846 that Cruikshank joined the teetotalers, and, like all new and thoroughgoing converts, he soon became most enthusiastic in the cause he had embraced. In 1847 he brought out the famous series of "The Bottle," which immediately obtained great popularity, as it told plainly enough a story which all could read, and told it with a degree of force and impressiveness that produced a powerful and in many cases doubtless a beneficial effect. The story was dramatised, and its representation drew cries and tears from hundreds who recognised but too readily from bitter experience the terrible fidelity of the scenes they witnessed. The pictures resemble in many respects some of the famous series of Hogarth; but, forcible as they are, they are not at all equal to other and earlier examples of the artist's skill. They suffer from being executed by a process with which Cruikshank was unfamiliar, and which, being radically defective, has since been practically abandoned. They suffer still more from the fact that Cruikshank in designing them was forcing his genius in a new direction, a direction opposed to all his antecedents. The fascinating freedom of hand, the wilful play of the pencil, which is one of the great charms in the illustrations of "Oliver Twist" and the "Irish Re-

* See "The Leisure Hour," 1876.

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bellion," is altogether wanting, and instead of it we have a sort of fettered propriety and an air of conventionalism which are pleasingly absent in the majority of his admirable works. "The Bottle" series, however, was immensely popular among the

illustrative of fairy tales, which appeared in 1853; some very clever pictures which he executed for a "Life of Falstaff;" and some fantastic sketches on wood accompanying an amusing brochure of his own on the "Belief in Ghosts." But, long before these



G. Cruikshank

From a Photograph by Elliott and Fry.

class whose views it was designed to further; and it was followed not long after its appearance by a supplemental series, entitled "The Drunkard's Children," which, if not equally successful, deserved to be so; and both the series were, and still continue to be, largely patronised by the advocates of total abstinence all over the kingdom.

Among the subsequent works of Cruikshank's graver may be noticed some very fanciful designs

last-named works appeared, he had in part given up the copper-plate and the wood-block in favour of oil-painting, in which he had had for years a fervent desire to excel, and in the prosecution of which he wrought with his characteristic energy. His success was as great, perhaps greater, than one might have expected, looking to the long experience he had had in the delineation of the delicate and minute. He drew by the foot as correctly as he had drawn by the

inch, and he composed his groups as effectively in large as in small; but all his colour was crude—his flesh too much resembled baked bricks; while of those startling effects of light and shade which sometimes gleamed and gloomed in his etchings no trace ever appeared on his canvas. One of the best of his paintings was "Disturbing the Congregation," painted for the Prince Consort and afterwards engraved in mezzotint. The best of all is, doubtless, the "Titania and Bottom," now in the South Kensington Museum. Others of considerable merit were "The Runaway Knock" and "Tam o' Shanter," which are full of humour of the peculiar kind which marked the veteran artist; and lastly, "The Worship of Bacchus," which he exhibited in 1863. This enormous picture, on which he must have spent so many months and days, can only be regarded as a huge mistake—an unfortunate waste of powerful talent which might have been so profitably employed in a hundred other different directions. To speak strictly, it is not art at all—it is not even a picture, but a multitude of pictures and bits of pictures crowded together in one huge mass of confusion and puzzle. It was in a luckless hour that so thorough a genius conceived so strange a plan, and most unfortunate for him was the consummation to which it led. The big canvas was sent on its travels through the provinces, and exhibited to the world at large at the customary shilling a-head for admission to view. The world at large would have little or nothing to say to it, and that for a very sufficient reason—to wit, that it was an offence, a rebuke, and a reproach to the immense majority, seeing that it assailed temperance and moderation and innocent conviviality as plainly as it did drunkenness and excess; while, regarded as a painting, it had few attractions. We have it on authority that the loss to Cruikshank by this venture was little, if any, less than two thousand pounds. He never was rich, for though he had put money into the pockets of a good many people, he had never been over-careful to line his own. In his latter years he had to sell his collection of prints and drawings, and his slender income was supplemented by a Government annuity.

"The Worship of Bacchus" was first exhibited at Exeter Hall in 1863. Even then Cruikshank had been for some threescore years before the public, and it is no wonder that many people who had seen their fathers and their fathers' fathers laughing and grinning over the Cruikshank pictures should imagine that the living artist of that name was a descendant of the man who had so long amused their progenitors. The idea of thus forestalling his posthumous reputation was not at all relished by the

living George, and therefore, in the preface to the catalogue of the Exeter Hall exhibition, he whimsically undeceives the "many persons" who expressed their belief that the caricaturist of former days was the grandfather of the present Cruikshank—assuring them that all the works exhibited are the production of one and the same person, by which they are to understand that he is not his own grandfather. He lived for nearly fifteen years after this a life of activity and usefulness—drawing, designing, etching, painting, writing for publication, lecturing, and doing all at all times with some moral or social amelioration in view. In his youth, when this country was threatened by the despot of France, he had been a volunteer, and in his old age he was again a volunteer in command of a company of total abstinents, and up to the last few weeks of his life was in sound and apparently vigorous health. If, when he first joined the teetotalers, thirty years ago, he was bantered and laughed at by his friends and literary associates—if even his dear friend Dickens made him the butt of his playful satire and exquisite wit, while others hardly less dear joined in the jocular reproach, it may at least be said—and the teetotalers have the right to say it if they will—that the laugh, after all, was on Cruikshank's side. The laughers, like "the leaves of autumn," dropped out of view one after the other, while the subject of their mirth lived on and on a noble life, until he had numbered fourscore and six, and then, full of years, and honoured by troops of friends, sank peacefully to rest.

In appearance Cruikshank was no ordinary person. He was rather under the middle size, of graceful build and firm muscular figure. His features were strikingly expressive—an eye that looked you through, a nose rather of the Roman type, a mouth and lips of classical mould, and a capacious forehead, the whole countenance, in middle life, rather wildly set in a redundancy of hair. He was constitutionally courageous, and being highly impulsive, was quickly stirred to action. Always prompt to take the initiative, whatever his hand found to do he did it with all his might, not at all like your ultra-deliberate men who hesitate and hesitate, deterred by this difficulty and that, until the opportunity for action is past. His facile fingers were ever in the forelock of Time, grasping with a determined hold the as yet undeveloped events, and pressing them into his service. Hence the astonishing number and variety of his works, works which will be hoarded and cherished long after the events and circumstances which gave rise to them have passed into oblivion. The last of England's purely satirical designers, he will assuredly be regarded as the greatest.

IRRIGATION AND NAVIGATION IN INDIA.

BY GENERAL SIR A. T. COTTON, R.E., K.C.S.I.

LET us begin the consideration of this subject with some account of the supplies of rain to the different parts. Over by far the greater part of India the south-west monsoon prevails—that is, the rains come with the south-west winds which begin on the west coast about the 1st of June, and continue four months. The quantity falling in the year, including the few showers that fall in the other eight months, is generally from forty to fifty inches, but on

the west coast it is from 100 to 160 inches, and on the western Ghauts much more. On the west slopes of the Neilgherries it is about 400 inches, and on the west slopes of the mountains east of Calcutta 600 inches, and there has been known 800 inches, or 70 feet, against 20 to 30 inches in England. On the other hand, in the desert east of the Indus there is scarcely any rain, and the same generally in the lower part of the basin of the Indus.

Though 50 inches is an abundant *quantity*, yet this is not all that is required, for there may be such long intervals, that in so hot a country the whole crop may be entirely destroyed between the falls, even when there is a full supply; and, moreover, there are never many years without a considerably deficient fall altogether over large tracts of country, when also the crop is lost.

The part of India called the Carnatic—that is, the country south and west of Madras—has only light rains during the south-west monsoon, but is chiefly dependent on the north-east monsoon for its supply, commencing about the 15th of October and ending about the end of the year, with scarcely any rain in the first five months of the year. And a great peculiarity of this monsoon is that it falls principally in heavy bursts of 5 or 10 inches, and mostly in the night, and as there are only about 40 inches altogether, there is perhaps hardly any other country in the world where there are so few rainy days. I have known a fall of 10 inches in one night, and a fortnight after 12 inches in another, thus half a year's supply in two showers. And here also, in some years, the rains fail almost entirely, and, as happened lately, even for two years together, but there is no record of such a thing before.

This state of things has led to the construction of thousands of tanks to store these bursts, to be drawn off to the fields in the intervals. There are about 40,000 of these in Madras alone, besides those in Bombay and in the native states of Mysore and Hyderabad. Many of these are magnificent works, from 10 to 25 miles in circumference, and from 10 to 60 feet deep. One will contain 100 million cubic yards, or twenty-five times as much as the reservoir at Sheffield which burst some years ago. These great and suitable works show the energy and sound judgment of the native rulers of former times. Some of them are of great antiquity. The largest is known to have been constructed in the second century by Veranum Rajah.

Besides the tanks, there are also many old canals of irrigation led off from the rivers, and these are supplied by noble weirs of immense stones across the rivers. It was from these that we learnt the way of building such weirs across the beds of sandy rivers which we have since constructed on a much larger scale across some of the largest rivers of India.

About four millions of acres are irrigated in the Madras Presidency alone from these ancient works, and they are of inestimable value, though most of them have a serious defect—viz., that they are not filled from the unfailing rivers, but from smaller streams, so that when the local rains fail very extensively, these works also fail, as in the late terrible famine.

The grievous thing about these native works is that for many years after we had taken possession of the country they were almost entirely neglected, so that tens of thousands of them were in ruins and none of them in thorough repair, instead of having been enlarged, and improved, and better supplied from the great rivers, as many of them might have been. Of late years more care has been taken of them, and some of the largest have been improved, but there are still thousands of them in disrepair and very few have been better supplied. One of the very first things that should be done is to put the whole of these essential works in perfect order, and to supply as many as possible by canals cut from the

great rivers, so as to make them independent of the local rains.

But there was one very extensive system of irrigation under the native rule, and this was the delta of the Cauvery, south of Madras. About 110 miles from the coast, the Agunda, or undivided Cauvery, parts into two branches, the Cauvery and Colleroon, the latter being the main branch and flowing on the lower level. About sixteen miles from the division a branch from the Cauvery returned to the Colleroon, and across this the Grand Anicut, as it is called, was thrown, I believe, about our era, a well constructed work of masonry some 600 yards long, in a bed of sand without a particle of rock for foundation. This work was our grand lesson in the art of weir-building. By this a considerably increased quantity of water was thrown into the delta of the Cauvery, forming the district of Tanjore. Here some three or four hundred thousand acres were watered but very imperfectly before our time. Some considerable improvements were made in this irrigation by us before 1830, but at that time the Cauvery threatened to leave the Tanjore district entirely, and find its way to the sea by the Colleroon. Our Government then took the matter up in earnest, and in that year began a series of works to bring the whole river fully under command, and in 1836 a weir was built across the head of the Colleroon, 1,100 yards long, which gave entire control of the water, so that any proportion could be turned into the Cauvery, and a second was thrown across the Colleroon seventy miles lower down, from which canals were led off on both sides, the northern canal flowing into the district of South Arcot, and securing the supply of the great Veranum tank, which is twenty-five miles in circumference. By these works this delta has been wonderfully improved, so that about 1,200,000 acres are securely irrigated. This is now one of the most fertile and prosperous tracts in the world, containing about two and a quarter millions of population, and it has been entirely secured from famine ever since, and not only so, but, as in the late famine, it has poured hundreds of thousands of tons of grain into the neighbouring districts when they needed it. The returns also to Government have been enormous, the revenue having increased £350,000 a year, upon an expenditure of about £400,000. This system of river irrigation has since been carried out to a very considerable extent in various parts of India, from the Rivers Pennaur, Pallaur, Kistnah, and Godavery in Madras, the Mahanuddee and Sone in Bengal, the Ganges and Jumna in the North-west, and the Sutlej and Ravee in the Punjab, as well as from several rivers in Bombay, and from the Indus in Sind, though as yet no anicut has been thrown across that great river, so that the canals are only supplied when the river is high.

All these are vast works, and are really such as become our immense advantages in extent of country, magnitude of resources, and mechanical knowledge. They are calculated to water from half a million to two million acres each, or together about 12 millions. About 16 millions have already been spent upon them, and 8 millions more will be required. They will secure the supply of food for about 24 millions of people out of the 180 millions under our immediate control. Thus some progress has really been made in this way for the securing of the people from famine, and raising them above the terrible state of poverty in which the great mass of the people are

still steeped, after so many years of our rule. The average cost of these works has been £2 an acre, and the average increase of produce in an ordinary year due to this river irrigation is about £1 10s., so that the results have been most abundantly remunerative. In a famine year the value of the crop is not less than £10 or £15, or from five to seven times the whole cost of the works. But when we speak of such irrigation as this we mean the entire regulation of the water; that is, embanking the rivers so as to preserve the lands from river floods, cutting enormous drains sufficient to carry off the tremendous floods of the tropical rains, and making all the principal canals navigable. An idea of these grand waterways may be formed from its being understood that to water a million acres requires a canal 200 yards broad and 3 deep, flowing $1\frac{1}{2}$ miles an hour, so that such a highway is fit for large steamers, and is capable of conveying millions of tons per annum. From the weir across the Godavery are led three canals, each 60 yards broad. The locks for these canals are made 150 feet by 20, and will admit boats of 250 tons.

Of the absolute necessity for these navigations in India, the following statement is a proof: The engineer of the East Bengal Railway leading from the Hooghly at Calcutta to Goalundo at the confluence of the Ganges and Burhampoota, as soon as he had finished the railway, wrote a letter insisting upon the necessity of cutting a canal by the side of it. In this letter he says, "The fact that the railway company has been in the field 12 years, and has literally acquired only a tythe of the traffic, is an unanswerable argument in favour of the canal." And again, "When a canal is once available there can be no doubt that it would command the whole goods traffic, provided the tolls are not too high. The present eastern traffic alone is 1,900,000 tons per annum, and is rapidly increasing. A toll of 2s. 6d. on this traffic alone would yield a return, after paying all expenses, of 11 per cent. on a capital of two millions. In the dry season, when the Nuddea rivers are unnavigable, the western traffic will go on by the canal, and that would probably double the receipts. Assuming the actual cost of transport to be 1s. a ton for 130 miles, (1½d. per ton per mile), the total cost, with a toll of 2s. 6d., would be 3s. 6d., at which rate there would be a saving of £840,000 a year on the eastern traffic alone, as compared with the present cost by rail, boat, and steamer." Thus a leading railway engineer estimates that there would be a saving on a single line of only 130 miles, on which there is already a railway and a river communication, though a bad and very circuitous one, of $1\frac{1}{2}$ millions a year, besides a profit of 22 per cent. on the outlay, and that on the present traffic alone, which would be enormously increased by such a reduction of cost of transit, from 12s. to 3s. 6d. What would the traffic be if this cheap transit were continued all the way up the valley of the Ganges for a thousand miles and throughout India? This calculation will show plainly the immense importance of the steamboat canals. In fact it is the very first thing that India requires.

Thus irrigation on a large scale, such as has been commenced under our rule, means, first, supplying the land with rich river water; second, embanking the rivers; third, draining the country in the monsoon; fourth, supplying the population all the year with fresh drinking water; and, fifth, providing steamboat canals to carry millions of tons at one-tenth of the cost of railway carriage.

I must now speak of the different kinds of water, its cost and value. In respect of irrigation there are four kinds of water. First, rain: this is almost pure, and supplies nothing to the land but moisture. The land dependent upon it must be continually renewed by manure. The second is well water: this also is quite pure, being filtered through the earth, or, what is worse, it is often injured for irrigation by being mixed with injurious minerals, especially at the end of the dry season, when it is often unfit for drinking, and the people have to go miles for wholesome water. The third is tank water: this generally contains a good deal of nourishment for plants in a state of solution, which it has absorbed from the lands it has passed over; but what it has held in suspension is almost all deposited in the bed of the tank before the water is drawn off to the fields. But the last kind of water, that from the rivers led direct to the fields by canals, only deposits the coarser parts of the silt it has brought down from the higher lands and forests, much of which is only sand, and it conveys a large quantity of its most fertilising silt to the fields. So complete is the effect of this fertilisation that lands so supplied continue to bear one or two grain crops for hundreds of years without other manure. Thus the district of Tanjore is believed to produce as large crops now as it did 2,000 years ago. The different rivers are more or less fertilising, according as they pass through different rocky strata. Thus the Kistnah, which passes through a limestone country, has a delta which was found to produce crops about 50 per cent. larger than the delta of the Godavery, which passes chiefly through a granitic country. It is thus that these great river irrigations are so much more important than well irrigation. But there is another reason for this—viz., the much smaller cost of river water when applied on a large scale. Besides the cost of a well, it is reckoned that the cost of raising water from a well 15 feet deep by bullocks is about 1r. for 300 cubic yards. In the case of the Godavery irrigation, for instance, the cost of the works has been £700,000; and 7 per cent. on this to allow for interest and repairs, is £50,000 a year; while the quantity of water led from the river is 8,000 million cubic yards, which gives 16,000 cubic yards for the rupee, or one-fiftieth of the cost of well water. But the average cost of such works has been about double that, and moreover, as yet, in all these works a very large portion of the water is not used, owing to a great part of the land commanded being under cultivation only four or five months in the year, so that the cost of this water actually used may be taken at 4,000 cubic yards per rupee, or 12 times the cost of well water, besides the vast difference in the fertilising quality, so that between these two things there is no comparison between river and well irrigation.

Now as to the quantity of water required. We generally allow 6,000 cubic yards to the acre of rice, that is, four months' supply at an evaporation of one-third of an inch a day for 120 days, the rice being in the seed-beds a month before it is planted out (one acre of seed-bed supplies 30 acres), and the last month of the crop requiring no additional water. There are different kinds of rice; some require only four months and some seven to grow; but the principal crop requires six months. Some trials have lately been made on the effect of different quantities of water upon rice with remarkable results, a great addition of crop being obtained by using 11,000 cubic yards.

When water is used for what we call dry grains, that is, crops that do not require to be constantly submerged, the quantity required is much less—viz., about 1,600 cubic yards. This is for wheat, or for any of the Indian grains, such as ragy, cholam, cumboo, Indian corn, etc.

The quantity of 1,600 cubic yards would be sufficient for eight waterings, or one every fortnight of 1½ inches. Of the value of water for rice, we may calculate the average quantity of rice per acre at half-a-ton. But it, of course, varies greatly. Allowing the average price of rice to be two-thirds of a penny per pound, this would give the value of the grain alone at rather more than £3 per acre; if we allow half of this as due to the water, it gives £1 10s. as the return for 6,000 cubic yards, or 200 cubic yards for the rupee, which shows the enormous difference between the cost and the value of the water as supplied from the great river works. But the value is also shown by the cost of raising the water from wells, for it is certain that the ryots would not continue to raise it at a cost of 300 cubic yards per rupee all over the country if it were not worth more than that. And when we add to the value of the grain that of the straw, with the protection from river floods, the carrying off the local rains, and the cheap transit, it will be seen how vast must be the difference between an irrigated and an unirrigated district even in ordinary years, but who can estimate its value in years of drought?

The following are some of the things that have been recorded on the effects of irrigation. Last year Mr. Monier Williams travelled through the famine districts, and he wrote thus to the "Times": "All the belts of land reached by the grand system of irrigation which stretches between the Godavery, Kistnah, and Cauvery rivers, fertilising the land wherever it reaches, and forcing even the haters of English rule to acknowledge that no other Rāj ever bestowed such benefits on India, present a marvellous contrast to the immense tracts of arid waste that meet the eye of the traveller by the railways." And Mr. Morris, in his official account of the district of Godavery, just published, says: "At the commencement of our rule it constituted a portion of a neglected province, and at one time it was brought into an extreme state of impoverishment; it was desolated by famine and misgoverned by the numerous landowners. Since the introduction, however, of the admirable system of irrigation, it has brightened and revived; famine is unknown, the people are prosperous and contented; it is the garden of the great Northern Province. The revenue, instead of being reduced to the verge of bankruptcy, is more elastic than it has ever been; the population is more than doubled; the material prosperity of its inhabitants is proved by their being better clothed, better fed, and better educated than formerly; its commerce has flourished, and its trade has developed in a marvellous degree, and it may be confidently asserted that it is in as happy, peaceful, and prosperous a condition as any province of her Imperial Majesty's dominions."

And in an address of the ryots of Trichinopoly, in the delta of the Cauvery, lately presented to the Government of Madras, they say, speaking of the great river irrigation works there and throughout India, "All which works have converted the tracts affected into scenes of matchless fertility and wealth, and have for ever protected them and neighbouring

provinces from the disaster of recurring droughts." They then suggest six or eight large projects of irrigation by tanks and river canals for their own district, and say, "All these are projects which, in the humble estimation of the ryots, will bring fertility and wealth to tracts now too frequently exposed to droughts, and which suffered but too severely during the present famine." And the Governor of Bengal said lately to a large assembly of natives at the Sone irrigation works in Behar: "Now the only way of averting famine is to make the greatest use which experience and science can suggest of the supply of water which, fortunately, nature has given us in Behar in the shape of rivers, but which supply we have hitherto allowed to run to waste, while the fields through which these rivers pass have been parched and waste for want of water." Again: "Shortly after this discussion the periodical rains were suspended, and then we had practical proof whether or not the Sone water was considered injurious or beneficial. The people clamoured for water, and to meet this demand we were forced to open our unfinished canals, and we have irrigated 200,000 acres"—(last month (January) 270,000)—"which would otherwise have continued waste, but are now covered with luxuriant crops." Again: "I have seen what every one admitted to be the finest crops ever seen in Behar, while the unirrigated fields by their side had hardly a blade of vegetation in them. I drove sixty miles through the irrigated tracts, and returned by one of the main canals. Nothing but this ocular demonstration could have convinced me of the enormous benefits which have been conferred upon the people by irrigation; throughout the only complaints which I received from the people were of the non-extension of the water supply to their villages."

This is the way that the effects of irrigation are spoken of by those who see them or experience the benefits from it.

As fever is often spoken of in connection with irrigation, I may state what I have learnt about it; but it can only be from what I have heard, for though I have passed my whole life in the rice-fields, I have never encountered it in those tracts, and therefore cannot speak of my own personal knowledge. The irrigated districts that I have been chiefly in—viz., in the Madras Presidency—are some of the healthiest in the world. There certainly is fever there, as there is in England and in every country in the world, but instead of its being excessive there, it is exceedingly moderate. A medical officer was sent to inquire into this matter in Godavery, and he reported that there was 8 per cent. of deaths from fever in the irrigated talooks, and 11 per cent. in the upper unirrigated talooks, and that there was no indication whatever of the fever being connected with the extent of irrigation. On the other hand, it is certain that the most virulent and fatal fever has been raging for years in the neighbourhood of Calcutta, where there is no regulation of the water; and there is not the least doubt that it is mainly owing to the sea of mud in which the people live in the monsoon, and the filthy water that they drink out of pits in the dry season, and that the remedy is to drain the land in the monsoon and provide the whole tract with thoroughly wholesome water all the year, fresh from the rivers. I have heard of fever from irrigation, and I suppose there is such a thing, but it certainly is an exception, and it is equally certain that for one village that is suffering from fever due to irrigation, there are ten

so suffering from want of regulation of the water. I have had innumerable fevers in India myself, but it has been invariably in the upper dry districts, and never in the irrigated districts.

There has also been a talk about the failure of some irrigation works, and it is true that there are two out of the multitude of irrigation works which are not yet making a fair return. But, first, these are the exceptions out of thousands; and, secondly, this is not owing to any failure of the works themselves; that is, they deliver the water at a cost per acre which would give as ample a return as the others, and it is solely in their management that the failure has occurred; that is, through the bad state of the districts, in respect of their management, difficulties have arisen, which were never heard of before, about the ryots using the water, but this difficulty will, of course, be got over. In one case—that of the Madras Irrigation Company on the Toombruda in Madras—this has already been partly got over, and 100,000 acres were irrigated last year. The Sone works were only partially opened last year, and this year 270,000 acres have been irrigated, though the works are not half finished. With respect to the extension of irrigation, there is not a district in India where extensive irrigation cannot be carried out at practicable cost, and thus the whole country can be supplied with a large extent of secure produce on the spot, but to this must be added the grand measure of carrying out a complete system of canal navigation so as to admit of every part being put in effective communication with every other part, that grain can be conveyed from any distance in any quantity at a nominal price, as Mr. Leslie has recommended for the line between the Hooghly and the Ganges. And this is also absolutely essential for the general requirements of India, both to allow of its using its own productions, and to enable it to convey to the coast from long distances such products as there is a market for in foreign countries, especially wheat, which, but for the cost of internal carriage, would be brought to England to the extent of some twenty millions of pounds sterling per annum. India has, for instance, abundance of coal, but for want of cheap transit the whole country is supplied with fuel by burning its manure instead of the same being applied to the land, an overwhelming evil. What is now wanted therefore to provide against famine is, first, to put the tens of thousands of tanks in complete order, to enlarge them, and, wherever possible, to supply them from the great rivers; second, to connect the various patches of navigation already executed in the different works of irrigation, and complete the lines of main canal throughout the country, for this is perfectly practicable throughout India; and thirdly, to extend irrigation to every district according to its capabilities. It is most certain that in this way not only can all India be secured from famine, if it pleases God to continue the seasons as hitherto—that is, without more severe failures of rain—but its wealth and prosperity can be increased far beyond the change which Mr. Morris reports to have passed over Godavery, for that district is still isolated and cut off from sharing in the coal and other productions of distant districts.

It will be seen by what Mr. Leslie says about the canal from Calcutta to the Ganges, that the grand desideratum is cheap transit; even in a short distance, as of 130 miles, $1\frac{1}{2}$ millions may be saved per annum. How much more must it be needed in great distances of 1,000 or 2,000 miles?

With respect to the general results of the great irrigation works executed by our Government, in returns to the Treasury directly from water rates alone, Mr. Thornton, the head of the Irrigation Department in the India Office, said, at a meeting of the Society of Arts, that the lowest return was four and three-quarters per cent., and the highest forty, for all the works in operation. Not only, therefore, has every one conferred immeasurable benefits on the people, but not one has failed to return ample profits to the Treasury, excepting the two works above spoken of, and those will certainly make as ample returns as soon as the necessary tact and intelligence are shown in the management of them, so that the difficulties with the ryots are got over.

HEALTH AND EDUCATION.

DR. B. W. RICHARDSON has recently been lecturing at the London Institution and elsewhere, on "Learning and Health." The most interesting and practical part of his lecture was a protest against the "forcing system," by which the brain is urged to excessive activity and premature development at the expense of the vital energy and normal growth of other parts of the body. There are evils on the one hand from the overdue attention to "muscular education," and on the other from the "intemperate" application to study.

It was against the latter class of evils that Dr. Richardson made protest. He thought that at this time health and education are not going hand in hand. He could not sit day by day to see the failure of the young brain, and of the brain approaching its maturity, and of the brain matured, and tamely accept the phenomena as inevitable. To him, observing as a physician, the appearance now-a-days of such men as Shakespeare, Newton, Bacon, in the freedom of their intellectual growths, was impossible. Nature could, as of old, produce acorns for future oaks, but if the young oaks were forced in their growth, and when approaching maturity were barbarously compressed into narrow and unyielding tubes, there would be no forest. The present modes of education are not compatible with healthy life. Faults in construction of schoolrooms, in school discipline, and school punishment exist, but they are departing errors, whereas others are doing lasting injury.

The first serious and increasing evil bearing on education and its relation to health lies in the too early subjection of pupils to study. Children are often taught lessons from books before they are properly taught to walk, and long before they are properly taught to play. Play is held out to them not as a natural thing, as something which the parent should feel it a duty to encourage, but as a reward for so much work done, and as a rest from work done, as though play were not itself a form of work, a form of work which a child likes while he dislikes another form because it is unfitted to his powers. For children under seven years of age all teaching should be through play. Through play, letters and languages can be taught, animal life can be classified, and the surface of the earth made clear, and history can be told as a story. Under such a system the child grows into knowledge, learns well, eats, sleeps, and plays well, and acquires the habit of happiness. The

increase of garden schools is a good sign. There are schools where children of eight, nine, and ten years of age, or it may be younger, are made to study from nine o'clock until noon, and again after a hasty meal and an hour for play from two to five, and later on are obliged to prepare lessons for the following morning. The brain is rendered active because diverted from its natural course, the child becomes precocious. Its tongue will be furred or covered with many red points like a strawberry, or too red and very dry. The appetite is capricious, strange foods are asked for, and the stomach is never in order. If you watch the face you note that the frequent flush gives way to paleness. The eyes gleam with light at one time, and are dull and sad at another. Sleep is broken. The child is a victim to the intemperance of education.

A second serious evil is the system of overwork and unhealthy competition at a somewhat later age. To put a horse in harness and make it work hard while growing is acknowledged to be cruel and ignorant, but to make a growing child work hard is thought a mark of vigilance. Teachers are often forced into such a course by the ambition of parents. The physician sees the result of the excitement of success and the depression after failure. Young men and young women now who are presenting themselves for the higher class examinations are crushed by the insanity of the effort. In the past year four of these victims have been under Dr. Richardson's care. In one, absence of memory had resulted; in another, sleeplessness, and that exhaustion which leads almost to delirious wandering. Here failure caused extreme depression. In the third case sleeplessness, labour, and excitement brought on an hereditary tendency to intermittency of the action of the heart. The examiners were not testing the cramming of this youth. He failed because his heart could hold out no longer under their manipulation. In the fourth instance it was necessary to decide whether a youth brought up just to the condition for going into the inquisition should, worn and wearied with the labour, bloodless and sleepless, run the risk, being quite ready for it, or at the last moment take six months' entire rest, and then be got up to the same pitch of lifelessness and misery again. The system, Dr. Richardson said, was doing sufficient evil to men, but what would happen to the world if women, anxious to emulate, were to have their way, and, like moths, follow their mates into the midnight candle of learning?

The evil which Dr. Richardson deprecates, as to the gentler sex, is already too frequent. His remarks about the too early forcing of the brain apply to girls as well as boys, but the results of over-competition are more mischievous in the female sex. The following letter has appeared in the "British Medical Journal," signed by a physician, a University graduate. It is reprinted as worth the earnest consideration of medical men, as well as of parents and teachers. Here is the letter, headed

UNIVERSITY LOCAL EXAMINATIONS.

I am surprised that no voice has been heard from any one in the medical profession in regard to the University examinations as applied to girls. My attention has been specially directed to the matter by being asked to advise whether two young ladies, aged fourteen and thirteen, ought to go in for the "Cambridge Locals." The book was put into my hands containing the examination papers for last year and

the programme of studies for next year. Of this book, I need not occupy space by giving any detailed account, but only say that I do not believe one of our school inspectors could stand examination without a good deal of preparation, and I know I would require some months' "coaching" to make a creditable appearance. In quality, some things are objectionable, but I confine myself to quantity in the subjects prescribed. So large an amount of brain-work and straining of the memory and other faculties at this particular time of female life, when the nervous power is more needed for physical development, must be injurious. No girl can enter for the junior examination who is over fifteen. I have known cases of brain fever and of permanently injured health from excessive study for prizes and other competitions at this age in ordinary schools. The University examinations are giving new impetus and development to this system of "forcing" all over the country.

I say nothing at present of the examinations as applied to boys' schools. Mr. Fawcett, M.P., in a recent speech, met supposed objections, and said that, for one boy whose health was injured by excessive study, nine were injured by insufficient mental work. I will not dispute this, especially as the tendency is now rather towards "muscular training" in excess. But, in regard to girls at the same age, I would reverse Mr. Fawcett's proportion, and say that nine out of ten are likely to be injured by excessive study.

When in America some years ago, I found that this subject of mental "forcing" by competition, both in the public schools and in private seminaries, was occupying much attention. Dr. Storer, of Boston, and other eminent medical men, strongly opposed the system, and they attributed to it, more than to climate, the nervous and unhealthy temperament of many of the educated women in the New England States, especially in large cities and towns, where the competition is greatest.

When the great Napoleon asked Madame de Staël what she thought was most needed for the welfare of France, the answer was, "Good mothers." The answer was excellent, if it included both moral and physical points of goodness, and is applicable to England as well as to France. But mere intellectual forcing, if pushed to excess, will be at the cost both of moral and physical good training. We used to laugh at the "accomplishments" which were taught in boarding-schools for girls; but they had this advantage, that they occupied pleasantly some of the time which is now all required for unnatural training of the mind and the memory.

It is very well for professional Inspectors and college Fellows to prepare these schemes of study; but medical men are in a position to regulate their application in particular cases with a view to social benefit and public health. Let any father examine these books, and, if he would not allow his own daughters to be overworked, he may give the same advice to his friends and neighbours.

Let me not be misunderstood. The University local examinations are doing good service in diffusing sound principles of education and in directing the courses of study in schools. It is only one abuse of the system to which I am calling attention. Professor Maurice, some years ago, gave warning as to the evil results of over-study and over-competition among boys. I am sure the warning is now doubly needed with regard to girls.

Varieties.

A VALUABLE FIDDLE.—"Galignani" says:—"A Stradivarius, signed and dated 1709, was sold lately at the Hotel-Drouot. It was put up at 10,000 fr., and was adjudicated for the large sum of 22,100 fr. A droll incident occurred during the sale, as when the instrument had been bid up to 18,000 fr. there was a great press of the curious to get a sight of it, and a table was suddenly upset, and three or four persons standing on it were overturned, amidst the general confusion of the crowd. "Do not be alarmed, gentlemen," exclaimed the auctioneer, "the violin is safe."

CAUSES OF DEPRESSION OF TRADE AND OF WANT OF PROSPERITY AMONG BRITISH WORKING PEOPLE.—A conference on these points was lately held at Bristol, and was attended by 150 working-men delegates. It lasted five hours. Speeches were made by Mr. Morley, M.P., Mr. Macdonald, M.P., Mr. Halliday, and other working-class leaders, and various causes were assigned for the present depression in trade. Several papers were also read. The depression was attributed variously to the high price of coal, the drinking habits of the country, strikes, the land laws, war, legislation, trades unions, and the locking-up of capital in the hands of the few. Mr. Morley suggested that one great remedy would be the securing of fresh markets, and he looked hopefully to Africa. Ultimately it was resolved that, in the opinion of the conference, the establishment of a just and comprehensive system of conciliation in the settlement of disputes between employers and employed would tend to the benefit of both classes and the nation at large.

RUSSIA AND ENGLAND.—Amidst the voluminous despatches and shifting situations of Anglo-Russian politics historical interest attaches to the following "Memorandum of a confidential conversation" of Count Schouvaloff with Lord Derby, which occurred as long ago as June 8th, 1877. The original, in French, was drawn up by the Russian Ambassador. The following is the official translation:—"His Majesty the Emperor attaches the greatest importance to the maintenance of good relations between the two countries. He will make every effort to that end; but the English Cabinet, on their side, must do the same. There is nothing to add to Prince Gortschakoff's letter with regard to the Suez Canal and Egypt. Russia will not touch upon these two points. With regard to Constantinople, our assurances can only refer to taking possession of the town or occupying it permanently. It would be singular and without precedent if, at the outset of a war, one of the belligerents undertook beforehand not to pursue its military operations up to the walls of the capital. It is not impossible that the obstinacy of the Turks, especially if they know themselves to be guaranteed against such an eventuality, may prolong the war instead of bringing it to a speedy termination. When once the English ministry is fully assured that we shall in no circumstances remain at Constantinople, it will depend on England and the other Powers to relieve us of the necessity of even approaching the town. It will be sufficient for them to use their influence with the Turks with a view to make peace possible before this extreme step is taken. On our side we shall willingly fall into this view."

BORING FOR COAL IN KENT.—Notwithstanding the results obtained from the borings in the Sussex Weald and at Meux's Brewery, a fresh attempt is, it appears, to be made in search for coal in the vicinity of either Dover or Canterbury. It is proposed to raise £5,000 by subscription, and the work is to be intrusted to the Diamond Rock Boring Company, who hope to reach a depth of two thousand feet in nine months. A committee has been formed, the Director-General of the Geological Survey, Mr. Godwin Austin, and Professor Prestwich being among its members, with Major Beaumont for secretary.—*Athenæum*.

WATER-CRESSSES.—No British plant is in such popular request for salad as the Water-cress, *Nasturtium officinale*, the young leaves of which are supposed, like those of the scurvy-grass (*Cochlearia officinalis*), to purify the blood, and therefore largely partaken of in the spring. Our old friend Gerard recommends young ladies to eat them as a restorative to the natural bloom of their faded cheeks. A decoction of its juice with that of scurvy-grass and Seville oranges used to be given to children as a medicinal drink in the spring in days gone by. In Europe the water-cress appears to have been first cultivated at Erfurth, about the middle of the sixteenth century, but it was not until 1808 that it became an object of cultivation in England. About that period a Mr. Bradbery began to grow

them for the London markets in the pretty valley called Springhead, Northfleet, Kent, with great success. In 1820 he removed to West Hyde, near Rickmansworth, where he had no less than five acres under water-cress cultivation. It is now extensively grown in the northern and eastern suburbs of the metropolis, and also at Cookham, Farringdon, and other places on the Great Western Railway, which line brings no less than a ton a week of this wholesome breakfast salad to London. Many hundred bunches are sold every morning in Covent Garden, but the largest share goes to Farringdon Market. The entire supply to the various Metropolitan markets cannot be less than from three to four tons per week (see Wynter's "Curiosities of Civilisation"). The sale of this plant forms an important though humble branch of domestic commerce in our towns and cities. "Fine fresh water-cresses!" is the first coster-cry heard in a morning in the streets of London. Water-cress contains chloride of potassium and sulphur in considerable quantities, and iodine occasionally.—*Hardwicke's Science Gossip*.

EUROPEAN SILVER COINAGE.—In January, 1876, the delegates fixed the total coinage of silver five-franc pieces for that year at a total sum of 120 millions of francs, in which was, however, comprised a sum of 8,400,000fr. for Greece, in addition to her proportional contingent. During the year the subject lost much of its interest, in France at least, from M. Léon Say's Bill, passed in August, 1876, to suspend all coinage of silver for private individuals. As the Government alone preserved the right to coin even the sum of silver fixed for France, all speculation in silver ceased. The price of silver having besides recovered, the Governments apparently thought it unnecessary to assemble the delegates in January last, and a verbal convention was agreed to that each of the five Powers should limit its coinage in 1877 to one-half of the sum fixed for 1876. According to that arrangement, the share of each of the Powers would be—Switzerland, 3,600,000fr.; Belgium, 5,400,000fr.; France, 27,000,000fr.; Italy, 18,000,000fr.; Greece, 1,800,000fr.; together, 55,800,000fr. In what measure each of the Powers has exercised its right of coining silver during the last two years is not known, as no official information has been given since the publication of the report by the Swiss delegates to their Government last year. According to that document, the Swiss Government, in 1875, although empowered by the Convention to coin to the amount of 10 millions in that year, did not exercise the right.—*The Economist*.

LARGE AND REMARKABLE TREES.—At Williamstone, in the parish of Madderty, Perthshire, we measured the other day a fine old walnut-tree, the only one now remaining of several grand old trees of the same kind which grew there some years ago, and I found it to be of the following dimensions, viz., the circumference of the stem at a foot from the base is 13 ft. 9 in.; height of the stem from the base to the first branches, 17 ft.; girth of stem immediately below the spring of the branches, 8 ft. 3 in.; and the circumference of the spread of the branches about 150 feet. There is a large quantity of measurable timber in the principal branches, one of which girths 7 ft. about 3 ft. above the fork, and another 6 ft. at the same distance up, but owing to want of means of access I was unable to take correct measurements of the limbs. The other walnut-trees which formerly grew here have either been cut down or destroyed by storms, so that not a vestige of them now remains; but if my memory is correct, some of them were even grander old trees than the above fine specimen, which I hope will long remain in its present healthy state, an interesting and picturesque object in the landscape. Near by this fine "walnut" stands a venerable oak, a veritable "monarch of the forest," the circumference of the stem at a foot from the ground being 20 ft. 6 in., and the height of the trunk up to the spring of the branches 15 ft., the girth at that height being 15 ft.; after which the trunk breaks up into four splendid limbs, forming a rich umbrageous canopy of healthy leaves and branches.—*J. D. M., in the "Journal of Forestry."*

STAG-HUNTING.—Here is a recent story of what, we suppose, should be described as "a splendid run with the hounds." "Her Majesty's staghounds met Lord Hardwicke, the master, and a very large field, at Gerrard's Cross, five miles from Uxbridge. A favourite stag was uncared, and, after running almost in a ring, it took to a sheet of water in Bulstrode Park, the seat of the Duke of Somerset, and was literally torn to death by the hounds." Yet our noble huntsmen would probably resent with scorn the imputation that they could witness a Spanish bull-fight.—*The Echo*.

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XXXIV.-XLII. 273, 280, 305,
321

Letters from the Rocky
Mountains. VII. By
ISABELLA L. BIRD . . . 280

Practical Social Science.
v. Water and Washing.
By the Rev. HARRY JONES,
M.A. 265

Utopias, or Schemes of
Social Improvement. III.
By the Rev. M. KAUF-
MANN, M.A. 293

Oriental Jugglery. II. By
JOHN NEVIL MASKELYNE 208



Contents.

Spanish Sketches. I. A
Night of Alarm 301

Our Schools 310

John Greenleaf Whittier
312, 330

The Serpent Legends of
Yorkshire 278

The Telephone. 318

The Paris Exhibition. . 327

Dr. Virchow on Evolution 333

Natural History Notes
and Anecdotes 326

Varieties . . . 287 304, 335

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